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10/606,602	06/26/2003	Robert Wieber	1001-117	5017

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DOBRUSIN & THENNISCH PC
29 W LAWRENCE ST
SUITE 210
PONTIAC, MI 48342

EXAMINER

PATEL, KIRAN B

ART UNIT	PAPER NUMBER
3612	

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,602

Applicant(s)

WIEBER, ROBERT

Examiner

Kiran B. Patel

Art Unit

3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,8,9,13 and 22-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,8,9,13 and 22-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Non-Final Rejection #2

Election/Restriction

Applicant's election with traverse of Species E, Fig 4, and claims 1, 3, 6, 8-9, 13, 22-38, is acknowledged. Claims 1, 3, 6, 8-9, 13, 22-38 are pending in the application. All previous rejections are withdrawn.

Applicant's Appeal Brief filed on 2/11/05 is also acknowledged.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claims 3, 6, 8-9, 13, 27-38 primer and a layer of paint.

Claims 25, 28, 38 - 10 welds, claims 26, 29- 5 welds, and claim 27 - 20 welds.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims, as best understood, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 6, 8, 9, 13, 22-26, 28-37 it appears that "An attachment" should be "The attachment" to provide proper antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) and in view of ordinary skill in the art.

Regarding claim 1, 22-24, Brodt et al. (6,027,160) discloses the invention as claimed to include a first member 6 having a first flange providing a first attachment surface; a second member 5 having a second flange providing a second attachment surface, the second surface opposing the first surface, at Least one of the first member and second member being a panel; and a structural adhesive material 14 adhered to the first surface and the second surface; the first member 6 or the second member 5 is a roof/side panel of an automotive vehicle.

However, Brodt et al. (6,027,160) does not disclose the structural adhesive material having a tensile strength of at least 12 Mpa.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use the structural adhesive material having a tensile strength of at least 12 Mpa, since it has been held to be within the general skill of a worker in the art (see specification paragraph 000037 - One exemplary expandable material is L-5204 structural foam available through L&L Products, Inc. of Romeo, Mich. Preferably the strength (e.g., tensile strength) of the adhesive material is at

least about 5 Mpa, more preferably at least about 12 Mpa and even more preferably at least about 20 Mpa, although the strength may be lower as well.) to select a known and commercially available material on the basis of its suitability for the intended use to achieve the desired strength for the attachment system joints and to maintain the integrity of the article. Higher level of cost efficiency can be achieved by identifying the required material from the materials known/available in the market than to develop new material.

3. Claim(s) 3, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 1 and further in view of ordinary skill in the art.

Regarding claim(s) 3, 6, Brodt et al. (6,027,160) discloses in Fig. 1-9 the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose a layer of primer and a layer of paint.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to apply a layer of primer and a layer of paint over the adhesive, since

it has been held to be within the general skill of a worker in the art to protect all the articles surfaces exposed to various conditions. A layer of primer and a layer of paint will minimize the deterioration of the article and increase the usable life of the article.

4. Claims 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 3 and further in view of Ligon et al. (5,358,397).

Regarding claim 8, 9, Brodt et al. (6,027,160) discloses the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose a mini-applicator and an extruder.

Ligon et al. (5,358,397) discloses a mini-applicator and an extruder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use a mini-applicator and an extruder, as disclosed by Ligon et al. (5,358,397) to apply the adhesive using the recommended method/ tools from the manufacturer and to achieve the desire level of strength for the attachment

system for the article. It is also known in the art (also see specification paragraph 0007) to use the recommended tools and methods from the manufacturer of the products used.

5. Claim(s) 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 3 and further in view of ordinary skill in the art.

Regarding claim(s) 13, Brodt et al. (6,027,160) discloses in Fig. 1-9 the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose a heat activatable adhesive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use a heat activatable adhesive, since it has been held to be within the general skill of a worker in the art (see specification paragraph 0005 - Preferably the sealant and/or adhesive materials of the present invention are an energy absorbing medium, and a heat activated bonding material. The adhesive material may be a foamable or expandable material, which could comprise an epoxy-

based resin, such as L5204, L5206, L5207, L5208 or L5209 structural foam commercially available from L & L Products of Romeo, Mich. Additional foamable or expandable materials that could be utilized in the present invention include other materials which are suitable as bonding mediums and which may be heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-coat and other paint operations) that the heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-coat and other paint operations to result in the desired level of strength for the attachment system joints for the article.

6. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 1 and further in view of ordinary skill in the art.

Regarding claims 25-26, Brodt et al. (6,027,160) discloses the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose less than 5 and less than 10 welds.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use less than 5/10 welds, since it has been held to be within the general skill of a worker in the art (also see Fig 6) to select a known and commercially available method of attachment on the basis of its suitability to achieve the desired strength for the attachment system and to maintain the integrity of the attached members during impact loading while using the article.

7. Claims 27, 31-34, 36-37, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) and in view of ordinary skill in the art.

Regarding claims 27, 31-34, 36-37, Brodt et al. (6,027,160) discloses Fig 1-9 the invention as claimed to include a roof panel 6 of the automotive vehicle, the roof panel having an angled flange extending at an angle from the roof panel, the flange providing an attachment surface; a side body panel 5 of the automotive vehicle, the side body panel having an angled flange extending at an angle from the side body panel, the flange of the side panel also providing an attachment surface;

and a structural adhesive 14 material adhered to the attachment surface of the roof panel and the attachment surface of the side panel;

However, Brodt et al. (6,027,160) does not disclose less than 20 welds and a layer of primer and a layer of paint over the adhesive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use less than 20 welds, since it has been held to be within the general skill of a worker in the art (also see Fig 6) to select a known and commercially available method of attachment on the basis of its suitability to achieve the desire strength for the attachment system joints and to maintain the integrity of the attached members during the impact loading while using the article.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to apply a layer of primer and a layer of paint over the adhesive, since it has been held to be within the general skill of a worker in the art to protect the articles exposed to various conditions. A layer of primer and a layer of paint will

minimize the deterioration of the article and its surfaces and increase the usable life of the article.

8. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 27 and further in view of ordinary skill in the art.

Regarding claims 28-29, Brodt et al. (6,027,160) discloses the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose less than 5 and less than 10 welds.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al.

(6,027,160), to use less than 5-10 welds, since it has been held to be within the general skill of a worker in the art (also see Fig 6) to select a known and

commercially available method of attachment on the basis of its suitability to

achieve the desire strength for the attachment system joints and to maintain the integrity of the attached members during impact loading while using the article.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 27 and further in view of ordinary skill in the art.

Regarding claim 30, Brodt et al. (6,027,160) discloses the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose the structural adhesive material having a tensile strength of at least 12 Mpa.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al.

(6,027,160), to use the structural adhesive material having a tensile strength of at least 12 Mpa, since it has been held to be within the general skill of a worker in the art (see specification paragraph 000037 - One exemplary expandable material is L-5204 structural foam available through L&L Products, Inc. of Romeo, Mich.

Preferably the strength (e.g., tensile strength) of the adhesive material is at least about 5 Mpa, more preferably at least about 12 Mpa and even more preferably at least about 20 Mpa, although the strength may be lower as well.) to select a known and commercially available material on the basis of its suitability for the intended use to achieve the desired strength for the attachment system

joints and maintain the integrity during the impact loading while in use of the article. Higher level of cost efficiency can be achieved by identifying the required material from the materials known/available in the market than to develop new material.

10. Claim(s) 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) as applied to claim 27 and further in view of in view of ordinary skill in the art.

Regarding claim(s) 35, Brodt et al. (6,027,160) discloses in Fig. 1-9 the invention as claimed.

However, Brodt et al. (6,027,160) does not disclose a heat activatable adhesive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use a heat activatable adhesive, since it has been held to be within the general skill of a worker in the art (see specification paragraph 0005 - Preferably the sealant and/or adhesive materials of the present invention are an energy absorbing medium, and a heat activated bonding material. The adhesive

material may be a foamable or expandable material, which could comprise an epoxy-based resin, such as L5204, L5206, L5207, L5208 or L5209 structural foam commercially available from L & L Products of Romeo, Mich. Additional foamable or expandable materials that could be utilized in the present invention include other materials which are suitable as bonding mediums and which may be heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-coat and other paint operations) that the heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-coat and other paint operations to result in the desired level of strength for the attachment system for the article.

11. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodt et al. (6,027,160) and in view of ordinary skill in the art.

Regarding claim 38, Brodt et al. (6,027,160) discloses Fig 1-9 the invention as claimed to include a roof panel 6 of the automotive vehicle, the roof panel having a first flange extending at an angle from the roof panel, the first flange of the

roof panel providing an attachment surface, the first flange of the roof panel extending downwardly at an angle relative to the roof panel; a side body panel 5 of the automotive vehicle, the side body panel having a first flange extending at an angle from the side body panel, the first flange of the side panel also providing an attachment surface, the first flange of the side panel extending downwardly, the body panel having a second flange extending from the first flange of the side panel; and a structural adhesive material 14 adhered to the attachment surface of the roof panel and the attachment surface of the side panel.

However, Brodt et al. (6,027,160) does not disclose an adhesive material being an epoxy-based structural foam having a tensile strength of at Least 12 MPa; less than 10 welds; and a layer of primer and a layer of paint adhesive material is formed from a heat activatable material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use the structural adhesive material having a tensile strength of at least 12 Mpa, since it has been held to be within the general skill of a worker in the art (see specification paragraph 000037 - One exemplary expandable material is L-5204 structural foam available through L&L Products, Inc. of Romeo, Mich.

Preferably the strength (e.g., tensile strength) of the adhesive material is at least about 5 Mpa, more preferably at least about 12 Mpa and even more preferably at least about 20 Mpa, although the strength may be lower as well.) to select a known and commercially available material on the basis of its suitability for the intended use to achieve the desire strength for the attachment system and to maintain the integrity of the attachment system during the impact and other loads during the use of the article. Higher level of cost efficiency can be achieved by identifying the required material from the materials known/available in the open market place than to develop new material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al. (6,027,160), to use less than 10 welds, since it has been held to be within the general skill of a worker in the art (also see Fig 6) to select a known and commercially available method of attachment on the basis of its suitability to achieve the desire strength for the attachment system and to maintain the integrity of the attached members during impact loading while using the article.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al.

(6,027,160), to apply a layer of primer and a layer of paint over the adhesive and other surfaces, since it has been held to be within the general skill of a worker in the art to protect all the articles and its respective surfaces exposed to various conditions. A layer of primer and a layer of paint will minimize the deterioration of the article and its surfaces and increase the usable life of the article.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention, as disclosed by Brodt et al.

(6,027,160), to use a heat activatable adhesive, since it has been held to be within the general skill of a worker in the art (see specification paragraph 0005 -

Preferably the sealant and/or adhesive materials of the present invention are an energy absorbing medium, and a heat activated bonding material. The adhesive material may be a foamable or expandable material, which could comprise an epoxy-based resin, such as L5204, L5206, L5207, L5208 or L5209 structural foam commercially available from L & L Products of Romeo, Mich. Additional foamable or expandable materials that could be utilized in the present invention include other materials which are suitable as bonding mediums and which may be heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-

coat and other paint operations) that the heat activated foams which activate and expand to fill a desired cavity or occupy a desired space or function when exposed to temperatures typically encountered in automotive e-coat and other paint operations to result in the desire level of strength for the attachment system for the article.

Conclusion

12. The prior art made of record in attached Notice of Reference Cited (PTO-892) and not relied upon is considered pertinent to applicant's disclosure. This art of record shows various features similar to the applicant's invention.

13. Any inquiry concerning this communication or earlier communications should be directed to Primary Examiner Kiran B. Patel whose telephone number is 703-305-0254. The examiner can normally be reached on M-F from 8:00 to 5:00. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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A handwritten signature in black ink, appearing to read 'K B Patel', with a stylized flourish at the end.

Kiran B. Patel, P. E.
Primary Examiner
Art Unit 3612
March 11, 2005